

**REMARKS**

After entry of the present Amendment, claims 1-3 and 6-19 remain in the application. Claim 1 has been amended to incorporate the elements of dependent claim 4 therein, and claim 6 has been similarly amended. Claim 4 has been cancelled through the present Amendment. Claim 5 was previously cancelled. Claims 15-19 are new. Support for new claims 15 and 17 can be found in the last full paragraph on page 5 of the application as filed. Support for new claims 16 and 18 can be found in the second full paragraph on page 10 of the application as filed. Support for new claim 19 can be found in the last paragraph on page 11 of the application as filed.

Claims 1 and 4-6 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ona et al. (USPN 4,557,887). Claims 1, 5, and 6 stand rejected under 35 U.S.C. §102(e) as being anticipated by Imai et al. (USPN 6,358,615) and under 35 U.S.C. §102(b) as being anticipated by JP 52-86985. Claims 1, 4-6, and 9-11 stand rejected under 35 U.S.C. §102(e) as being anticipated by JP 4-20570. Claims 1, 3, 4, 6, and 8 stand rejected under 35 U.S.C. §102(b) as being anticipated by Mine et al. (USPN 4,269,753). Claims 1, 2, and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by Katsoulis et al. (USPN 5,830,950). Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Katsoulis et al. Claims 12-13 are objected to as being dependent upon a rejected base claim, but are otherwise allowable. Claim 14 is allowable.

In view of the amendment of claims 1 and 6 to incorporate the elements of dependent claim 4, the Applicants respectfully submit that the rejections relying upon Imai et al. and JP 52-

86985 are moot. As such, the Applicants respectfully submit that these rejections are also moot. Thus, the pending rejections that remain are those over Ona et al., JP 4-20570, Mine et al., and Katsoulis et al.

The self-supporting polysiloxane films claimed in instant claims 1 and 6, as well as the laminated film of claim 9, are significant due to the fact that the claimed films are both self-supporting and have the optical properties as claimed. The first paragraph after the heading “Disclosure of the Invention” in the specification as originally filed makes reference to the significance of the aforementioned properties of the polysiloxane films, and the Examples illustrate actual self-supporting polysiloxane films having the claimed optical properties. In particular, yield and tensile strength of the self-supporting films are shown to be very high in the Examples. As such, the instant claims 1 and 6, as amended, are directed to the **class** of polysiloxane films that are **both** self-supporting and have the claimed optical properties, and claim 9 is directed to a laminated film that includes a self-supporting polysiloxane film having the claimed optical properties. With regard to the chemical structures and formulas claimed for the polysiloxanes (such as in claims 1-3, 6-8, and 11-13), the Applicants respectfully submit that the chemical structures and formulas only serve provide further limitation as to the genus of polysiloxanes that broadly encompass polysiloxanes that have the claimed combination of physical properties. **These claims are not to be read as indicating that any polysiloxane falling within the scope of the chemical structures or formulas necessarily has the claimed physical properties.** Stated differently, the mere claiming of the chemical structures and formulas does not change the scope of claims 1, 6, and 9 in terms of the claimed physical

properties, and even if a polysiloxane of the prior art falls under the purview of one or more of the claimed chemical structures or formulas, the prior art polysiloxane must still have the claimed physical properties. Thus, contrary to some of the Examiner's prior comments, the claimed polysiloxanes are more than just mere hydrosilylation-cured silicones and there are not hundreds of similar compositions that satisfy each and every claim element of independent claims 1, 6, and 9 when proper weight is given to the claimed physical properties.

The combination of mechanical strength and optical properties of the self-supporting polysiloxane films claimed in claims 1, 6, and 9 has yet to be achieved in films formed from polysiloxanes. While silicone elastomers (i.e., rubbers) are known in the art, it is also known that the silicone elastomers require fillers to provide sufficient mechanical properties (refer to "Chemistry and Technology of Silicones", page 400, paragraph 8.1.3.1.1 to the end of the third full paragraph on page 401). Addition of a sufficient amount of the fillers to achieve acceptable mechanical properties sufficient to make the film a self supporting film has the effect of sacrificing transparency of the polysiloxane films. As such, silicone elastomers that require inclusion of filler to achieve acceptable mechanical properties are incapable of achieving the combination of physical properties claimed in claims 1, 6, and 9. As described in further detail below, some of the references relied upon by the Examiner are directed toward silicone elastomers and, therefore, do not have the combination of physical properties claimed in the instant claims.

Furthermore, silicone release coatings do not have the combination of mechanical strength and optical properties of the self-supporting polysiloxane films claimed in claims 1, 6,

and 9. The silicone release coatings cannot be removed from the paper substrates upon which they are formed, and the silicone release coatings are not self-supporting films. Further, as described in the middle column on page 3 of “Factors Affecting the Selection and Performance of Release Coatings”, “[l]ow surface energy from the dimethyl groups and the great flexibility of the siloxane backbone are the two [unique properties of polydimethylsiloxanes] that make the formulation of release coatings possible . . . [t]he silicone backbone is an extremely flexible polymer chain with virtually unhindered rotation about all the Si-O-Si bonds.” The flexibility that is necessary to impart siloxanes with properties suitable for release coating applications clearly illustrates that siloxane films that are useful for release coatings do not have sufficient strength to be characterized as self-supporting films. As described in further detail below, some of the references relied upon by the Examiner are directed toward silicone release coatings and, therefore, do not have the combination of physical properties claimed in the instant claims.

In view of the foregoing explanations, and further in view of the amendments to claims 1 and 6, the Applicants respectfully traverse the instant rejections as follows.

**Rejections Under 35 U.S.C. §102(b) Over Ona et al.**

As to these rejections, the Applicants respectfully submit that Ona et al. is directed toward production of thin silicone **elastomeric** films. As made clear above, silicone elastomeric films require reinforcing fillers such as fumed silica to achieve acceptable mechanical properties sufficient to render the film into a self supporting film, thereby sacrificing optical properties of the resulting film. The instantly claimed self-supporting polysiloxane films have sufficient mechanical strength without the need for reinforcing fillers, as illustrated by the claimed optical

properties, such that the elastomeric films of Ona et al. do not disclose or teach each element of independent claims 1 or 6 as is required under 35 USC §102.

**Rejections Under 35 U.S.C. §102(b) Over JP 4-20570**

As to these rejections, the Applicants respectfully submit that JP 4-20570 fails to disclose or teach a self-supporting polysiloxane film as claimed in the instant claims having the claimed physical properties. In particular, the polysiloxanes taught by JP 4-20570 are taught for use in release coatings. Referring to the above description of release coatings, it is clear that the release coatings of JP 4-20570 cannot possess sufficient strength to be self supporting while still maintaining properties characteristic of release films, and clearly cannot satisfy the threshold for tensile strength claimed in claim 15 such that the films of JP 4-20570 do not disclose or teach each element of independent claims 1 or 6, as is required under 35 USC §102, because the films taught in JP 4-20570 are not self-supporting.

**Rejections Under 35 U.S.C. §102(b) Over Mine et al.**

As to these rejections, the Applicants respectfully submit that Mine et al. discloses a siloxane composition which is converted into an elastomeric or resinous film upon curing and is further converted to a strong, hard ceramic film when exposed to high temperatures in excess of 500 °C. Notably, Mine et al. requires ceramic-forming fillers such as glass, zinc oxide, alumina, mica, etc. to achieve the desired hardness (see column 4, lines 20-43 of Mine et al). Such fillers, when present in amounts sufficient to achieve the desired hardness properties of the film in Mine et al., sacrifice optical properties of the resulting film such that the films of Mine et al. cannot satisfy the optical properties of the claimed film in the instant application. As such, the

films of Mine et al. do not disclose or teach each element of independent claims 1 or 6 as is required under 35 USC §102.

**Rejections Under 35 U.S.C. §102(b) and §103(a) Over Katsoulis et al.**

As to these rejections, the Applicants respectfully submit that Katsoulis et al. discloses a rubber-modified rigid silicone resin that must have at least two phases; an elastomeric portion and a resinous portion. The presence of the two separate phases necessarily results in birefringence in the resin such that the optical properties claimed in the instant claims are not and cannot be achieved by the films of Katsoulis et al. As such, Katsoulis et al. does not disclose or teach each element of independent claim 1 as is required under 35 USC §102, and there is also no basis in the prior art to modify Katsoulis et al. in a way that meets each and every element of independent claim 6, as is required to establish obviousness under 35 USC §103.

In view of the foregoing, the Applicants respectfully submit that none of the prior art relied upon by the Examiner discloses or teaches self-supporting polysiloxane films having the optical properties claimed in the instant claims. The Applicants have clearly shown possession of the invention through the Examples section of the instant application, and the claims directed to specific chemical structures and formulas are not to be viewed as representing that each and every siloxane that falls within a given formula possesses the physical properties claimed in the respective independent claims. For these reasons, the Applicants respectfully submit that independent claims 1, 6, and 9, as well as the claims that depend therefrom, as both novel and non-obvious such that these claims are in condition for allowance.

The appropriate fee for a 1-month extension of time is included herewith. While the Applicants believe that no further fees are presently due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 08-2789 in the name of Howard & Howard.

**Respectfully submitted,**

**HOWARD & HOWARD ATTORNEYS**

December 3, 2007

Date

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